

### **ABSTRACT OF THE DISCLOSURE**

A novel microscope and method of obtaining images includes a combination of the conventional darkfield illuminations technique with electronic image inversion (converting a positive to a negative image) and other improvements to further enhance the contrast and resolution of the final image. The microscope and method are referred to herein as Inverted Darkfield Contrast (IDC) and are believed to be particularly suitable for viewing live cells in real time with no staining or preparation.